



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

December 17, 2019

Alan Sundquist  
CDW Consultants, Inc.  
6 Huron Drive  
Natick, MA 01760

Project Location: 240 Beaver St. Waltham, MA  
Client Job Number:  
Project Number: 1830.1  
Laboratory Work Order Number: 19L0400

Enclosed are results of analyses for samples received by the laboratory on December 10, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Michelle Koch'. The signature is written in a cursive, flowing style.

Michelle M. Koch  
Project Manager

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CDW Consultants, Inc.  
6 Huron Drive  
Natick, MA 01760  
ATTN: Alan Sundquist

REPORT DATE: 12/17/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 1830.1

## ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19L0400

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 240 Beaver St. Waltham, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Gp4-1 (3-5')	19L0400-01	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-2 (4-6')	19L0400-02	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-3 (4-6')	19L0400-03	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-4 (3-5')	19L0400-04	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-5 (6-8')	19L0400-05	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-6 (3-5')	19L0400-06	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-7 (3-5')	19L0400-07	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-9 (0-2')	19L0400-08	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8270D-E	
Gp4-2 (6-8')	19L0400-09	Soil		SM 2540G SW-846 8082A	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

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SW-846 6010D

**Qualifications:****MS-07**

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

**Analyte & Samples(s) Qualified:****Antimony**

19L0400-01[Gp4-1 (3-5)], B248351-MS1

**Selenium**

19L0400-01[Gp4-1 (3-5)], B248351-MS1

SW-846 8082A

**Qualifications:****S-01**

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

**Analyte & Samples(s) Qualified:****Decachlorobiphenyl**

19L0400-09[Gp4-2 (6-8')]

**Decachlorobiphenyl [2C]**

19L0400-09[Gp4-2 (6-8')]

**Tetrachloro-m-xylene**

19L0400-09[Gp4-2 (6-8')]

**Tetrachloro-m-xylene [2C]**

19L0400-09[Gp4-2 (6-8')]

SW-846 8270D-E

**Qualifications:****MS-09**

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

**Analyte & Samples(s) Qualified:****3,3-Dichlorobenzidine**

19L0400-01[Gp4-1 (3-5)], B248158-MS1, B248158-MSD1

**4-Chloroaniline**

19L0400-01[Gp4-1 (3-5)], B248158-MS1, B248158-MSD1

**Aniline**

19L0400-01[Gp4-1 (3-5)], B248158-MS1, B248158-MSD1

**Hexachloroethane**

19L0400-01[Gp4-1 (3-5)], B248158-MS1, B248158-MSD1

**MS-22**

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

**Analyte & Samples(s) Qualified:****1,4-Dichlorobenzene**

B248158-MS1

**2-Chloronaphthalene**

B248158-MS1

**Hexachlorobenzene**

B248158-MS1

**RL-08**

Elevated reporting limit due to sample matrix interference. MA CAM reporting limit not met.

**Analyte & Samples(s) Qualified:**

19L0400-01[Gp4-1 (3-5)], 19L0400-02[Gp4-2 (4-6)], 19L0400-03[Gp4-3 (4-6)], 19L0400-04[Gp4-4 (3-5)], 19L0400-05[Gp4-5 (6-8)], 19L0400-06[Gp4-6 (3-5)], 19L0400-07[Gp4-7 (3-5)]

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V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:****Pentachlorophenol**

19L0400-04[Gp4-4 (3-5')], 19L0400-05[Gp4-5 (6-8')], 19L0400-06[Gp4-6 (3-5')], 19L0400-07[Gp4-7 (3-5')], 19L0400-08[Gp4-9 (0-2')], S043741-CCV1, S043758-CCV1

**Pyrene**

19L0400-01[Gp4-1 (3-5')], 19L0400-02[Gp4-2 (4-6')], 19L0400-03[Gp4-3 (4-6')], B248158-BLK1, B248158-BS1, B248158-BSD1, B248158-MS1, B248158-MSD1, S043694-CCV1

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V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:****4-Chloroaniline**

19L0400-04[Gp4-4 (3-5')], 19L0400-05[Gp4-5 (6-8')], 19L0400-06[Gp4-6 (3-5')], 19L0400-07[Gp4-7 (3-5')], 19L0400-08[Gp4-9 (0-2')], S043741-CCV1, S043758-CCV1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington

Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-1 (3-5')

Sampled: 12/9/2019 08:05

Sample ID: 19L0400-01

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Acenaphthylene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Acetophenone	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Aniline	ND	0.72	mg/Kg dry	2	MS-09	SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Anthracene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Benzo(a)anthracene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Benzo(a)pyrene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Benzo(b)fluoranthene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Benzo(g,h,i)perylene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Benzo(k)fluoranthene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Bis(2-chloroethoxy)methane	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Bis(2-chloroethyl)ether	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Bis(2-chloroisopropyl)ether	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
4-Bromophenylphenylether	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Butylbenzylphthalate	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
4-Chloroaniline	ND	1.4	mg/Kg dry	2	MS-09	SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2-Chloronaphthalene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2-Chlorophenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Chrysene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Dibenz(a,h)anthracene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Dibenzofuran	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Di-n-butylphthalate	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
1,2-Dichlorobenzene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
1,3-Dichlorobenzene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
1,4-Dichlorobenzene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
3,3-Dichlorobenzidine	ND	0.36	mg/Kg dry	2	MS-09	SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2,4-Dichlorophenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Diethylphthalate	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2,4-Dimethylphenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Dimethylphthalate	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2,4-Dinitrophenol	ND	1.4	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2,4-Dinitrotoluene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2,6-Dinitrotoluene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Di-n-octylphthalate	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Fluoranthene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Fluorene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Hexachlorobenzene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Hexachlorobutadiene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Hexachloroethane	ND	0.72	mg/Kg dry	2	MS-09	SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Indeno(1,2,3-cd)pyrene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Isophorone	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2-Methylnaphthalene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR



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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-1 (3-5')

Sampled: 12/9/2019 08:05

Sample ID: 19L0400-01

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
3/4-Methylphenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Naphthalene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Nitrobenzene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2-Nitrophenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
4-Nitrophenol	ND	1.4	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Pentachlorophenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Phenanthrene	ND	0.36	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Phenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Pyrene	ND	0.36	mg/Kg dry	2	V-05	SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
1,2,4-Trichlorobenzene	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2,4,5-Trichlorophenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
2,4,6-Trichlorophenol	ND	0.72	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 17:41	IMR
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
2-Fluorophenol	48.4		30-130				12/12/19 17:41		
Phenol-d6	48.2		30-130				12/12/19 17:41		
Nitrobenzene-d5	44.5		30-130				12/12/19 17:41		
2-Fluorobiphenyl	55.0		30-130				12/12/19 17:41		
2,4,6-Tribromophenol	47.8		30-130				12/12/19 17:41		
p-Terphenyl-d14	53.4		30-130				12/12/19 17:41		

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-1 (3-5')

Sampled: 12/9/2019 08:05

Sample ID: 19L0400-01

Sample Matrix: Soil

## Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1	MS-07	SW-846 6010D	12/13/19	12/16/19 21:10	MJH
Arsenic	12	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Barium	37	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Beryllium	0.37	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Cadmium	0.25	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Chromium	31	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Lead	46	0.53	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Mercury	ND	0.027	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 11:51	CJV
Nickel	22	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Selenium	ND	3.5	mg/Kg dry	1	MS-07	SW-846 6010D	12/13/19	12/16/19 21:10	MJH
Silver	ND	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 21:10	MJH
Vanadium	56	0.70	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH
Zinc	57	0.70	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:51	MJH

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-1 (3-5')

Sampled: 12/9/2019 08:05

Sample ID: 19L0400-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.3		% Wt	1		SM 2540G	12/11/19	12/11/19 15:03	adb

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-2 (4-6')

Sampled: 12/9/2019 08:40

Sample ID: 19L0400-02

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Acenaphthylene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Acetophenone	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Aniline	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Anthracene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Benzo(a)anthracene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Benzo(a)pyrene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Benzo(b)fluoranthene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Benzo(g,h,i)perylene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Benzo(k)fluoranthene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Bis(2-chloroethoxy)methane	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Bis(2-chloroethyl)ether	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Bis(2-chloroisopropyl)ether	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
4-Bromophenylphenylether	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Butylbenzylphthalate	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
4-Chloroaniline	ND	1.5	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2-Chloronaphthalene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2-Chlorophenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Chrysene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Dibenz(a,h)anthracene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Dibenzofuran	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Di-n-butylphthalate	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
1,2-Dichlorobenzene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
1,3-Dichlorobenzene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
1,4-Dichlorobenzene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
3,3-Dichlorobenzidine	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2,4-Dichlorophenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Diethylphthalate	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2,4-Dimethylphenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Dimethylphthalate	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2,4-Dinitrophenol	ND	1.5	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2,4-Dinitrotoluene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2,6-Dinitrotoluene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Di-n-octylphthalate	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Fluoranthene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Fluorene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Hexachlorobenzene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Hexachlorobutadiene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Hexachloroethane	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Indeno(1,2,3-cd)pyrene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Isophorone	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2-Methylnaphthalene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-2 (4-6')

Sampled: 12/9/2019 08:40

Sample ID: 19L0400-02

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
3/4-Methylphenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Naphthalene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Nitrobenzene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2-Nitrophenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
4-Nitrophenol	ND	1.5	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Pentachlorophenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Phenanthrene	ND	0.37	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Phenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Pyrene	ND	0.37	mg/Kg dry	2	V-05	SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
1,2,4-Trichlorobenzene	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2,4,5-Trichlorophenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
2,4,6-Trichlorophenol	ND	0.75	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:06	IMR
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
2-Fluorophenol	48.7	30-130						12/12/19 18:06	
Phenol-d6	48.3	30-130						12/12/19 18:06	
Nitrobenzene-d5	44.0	30-130						12/12/19 18:06	
2-Fluorobiphenyl	57.5	30-130						12/12/19 18:06	
2,4,6-Tribromophenol	48.6	30-130						12/12/19 18:06	
p-Terphenyl-d14	57.2	30-130						12/12/19 18:06	

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-2 (4-6')

Sampled: 12/9/2019 08:40

Sample ID: 19L0400-02

Sample Matrix: Soil

## Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Arsenic	5.3	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Barium	46	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Beryllium	0.25	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Cadmium	0.36	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Chromium	21	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Lead	35	0.53	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Mercury	ND	0.028	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 11:53	CJV
Nickel	13	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Selenium	ND	3.5	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Silver	1.9	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 21:16	MJH
Vanadium	38	0.71	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH
Zinc	110	0.71	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 15:56	MJH

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-2 (4-6')

Sampled: 12/9/2019 08:40

Sample ID: 19L0400-02

Sample Matrix: Soil

## Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.8		% Wt	1		SM 2540G	12/11/19	12/11/19 15:03	adb

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-3 (4-6')

Sampled: 12/9/2019 09:30

Sample ID: 19L0400-03

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Acenaphthylene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Acetophenone	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Aniline	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Anthracene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Benzo(a)anthracene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Benzo(a)pyrene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Benzo(b)fluoranthene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Benzo(g,h,i)perylene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Benzo(k)fluoranthene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Bis(2-chloroethoxy)methane	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Bis(2-chloroethyl)ether	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Bis(2-chloroisopropyl)ether	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
4-Bromophenylphenylether	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Butylbenzylphthalate	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
4-Chloroaniline	ND	1.4	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2-Chloronaphthalene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2-Chlorophenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Chrysene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Dibenz(a,h)anthracene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Dibenzofuran	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Di-n-butylphthalate	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
1,2-Dichlorobenzene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
1,3-Dichlorobenzene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
1,4-Dichlorobenzene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
3,3-Dichlorobenzidine	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2,4-Dichlorophenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Diethylphthalate	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2,4-Dimethylphenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Dimethylphthalate	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2,4-Dinitrophenol	ND	1.4	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2,4-Dinitrotoluene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2,6-Dinitrotoluene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Di-n-octylphthalate	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Fluoranthene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Fluorene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Hexachlorobenzene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Hexachlorobutadiene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Hexachloroethane	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Indeno(1,2,3-cd)pyrene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Isophorone	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2-Methylnaphthalene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR



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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-3 (4-6')

Sampled: 12/9/2019 09:30

Sample ID: 19L0400-03

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
3/4-Methylphenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Naphthalene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Nitrobenzene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2-Nitrophenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
4-Nitrophenol	ND	1.4	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Pentachlorophenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Phenanthrene	ND	0.35	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Phenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
Pyrene	ND	0.35	mg/Kg dry	2	V-05	SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
1,2,4-Trichlorobenzene	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2,4,5-Trichlorophenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR
2,4,6-Trichlorophenol	ND	0.71	mg/Kg dry	2		SW-846 8270D-E	12/11/19	12/12/19 18:31	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	39.8	30-130	
Phenol-d6	38.8	30-130	
Nitrobenzene-d5	35.2	30-130	
2-Fluorobiphenyl	44.7	30-130	
2,4,6-Tribromophenol	38.7	30-130	
p-Terphenyl-d14	43.8	30-130	

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-3 (4-6')

Sampled: 12/9/2019 09:30

Sample ID: 19L0400-03

Sample Matrix: Soil

## Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Arsenic	7.9	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Barium	31	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Beryllium	0.31	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Cadmium	ND	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Chromium	34	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Lead	39	0.53	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Mercury	ND	0.026	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 11:55	CJV
Nickel	23	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Selenium	ND	3.5	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Silver	ND	0.35	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 21:36	MJH
Vanadium	62	0.70	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH
Zinc	51	0.70	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:15	MJH

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-3 (4-6')

Sampled: 12/9/2019 09:30

Sample ID: 19L0400-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.9		% Wt	1		SM 2540G	12/11/19	12/11/19 15:04	adb

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-4 (3-5')

Sampled: 12/9/2019 09:50

Sample ID: 19L0400-04

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Acenaphthylene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Acetophenone	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Aniline	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Anthracene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Benzo(a)anthracene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Benzo(a)pyrene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Benzo(b)fluoranthene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Benzo(g,h,i)perylene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Benzo(k)fluoranthene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Bis(2-chloroethoxy)methane	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Bis(2-chloroethyl)ether	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Bis(2-chloroisopropyl)ether	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Bis(2-Ethylhexyl)phthalate	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
4-Bromophenylphenylether	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Butylbenzylphthalate	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
4-Chloroaniline	ND	3.4	mg/Kg dry	4	V-34	SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2-Chloronaphthalene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2-Chlorophenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Chrysene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Dibenz(a,h)anthracene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Dibenzofuran	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Di-n-butylphthalate	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
1,2-Dichlorobenzene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
1,3-Dichlorobenzene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
1,4-Dichlorobenzene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
3,3-Dichlorobenzidine	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2,4-Dichlorophenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Diethylphthalate	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2,4-Dimethylphenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Dimethylphthalate	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2,4-Dinitrophenol	ND	3.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2,4-Dinitrotoluene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2,6-Dinitrotoluene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Di-n-octylphthalate	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
1,2-Diphenylhydrazine/Azobenzene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Fluoranthene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Fluorene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Hexachlorobenzene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Hexachlorobutadiene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Hexachloroethane	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Indeno(1,2,3-cd)pyrene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Isophorone	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2-Methylnaphthalene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-4 (3-5')

Sampled: 12/9/2019 09:50

Sample ID: 19L0400-04

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
3/4-Methylphenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Naphthalene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Nitrobenzene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2-Nitrophenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
4-Nitrophenol	ND	3.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Pentachlorophenol	ND	1.7	mg/Kg dry	4	V-05	SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Phenanthrene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Phenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Pyrene	ND	0.86	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
1,2,4-Trichlorobenzene	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2,4,5-Trichlorophenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
2,4,6-Trichlorophenol	ND	1.7	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:07	KLB
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
2-Fluorophenol	49.4	30-130						12/13/19 21:07	
Phenol-d6	52.3	30-130						12/13/19 21:07	
Nitrobenzene-d5	48.1	30-130						12/13/19 21:07	
2-Fluorobiphenyl	51.1	30-130						12/13/19 21:07	
2,4,6-Tribromophenol	34.5	30-130						12/13/19 21:07	
p-Terphenyl-d14	51.1	30-130						12/13/19 21:07	

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-4 (3-5')

Sampled: 12/9/2019 09:50

Sample ID: 19L0400-04

Sample Matrix: Soil

## Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.1	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Arsenic	7.9	2.1	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Barium	46	2.1	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Beryllium	0.44	0.21	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Cadmium	ND	0.21	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Chromium	29	0.43	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Lead	28	0.64	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Mercury	0.036	0.033	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 12:00	CJV
Nickel	22	0.43	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Selenium	ND	4.3	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Silver	ND	0.43	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Thallium	ND	2.1	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 21:42	MJH
Vanadium	56	0.85	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH
Zinc	65	0.85	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:21	MJH



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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-4 (3-5')

Sampled: 12/9/2019 09:50

Sample ID: 19L0400-04

Sample Matrix: Soil

## Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.4		% Wt	1		SM 2540G	12/11/19	12/11/19 15:04	adb



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-5 (6-8")

Sampled: 12/9/2019 10:20

Sample ID: 19L0400-05

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Acenaphthylene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Acetophenone	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Aniline	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Anthracene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Benzo(a)anthracene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Benzo(a)pyrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Benzo(b)fluoranthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Benzo(g,h,i)perylene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Benzo(k)fluoranthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Bis(2-chloroethoxy)methane	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Bis(2-chloroethyl)ether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Bis(2-chloroisopropyl)ether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Bis(2-Ethylhexyl)phthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
4-Bromophenylphenylether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Butylbenzylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
4-Chloroaniline	ND	2.8	mg/Kg dry	4	V-34	SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2-Chloronaphthalene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2-Chlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Chrysene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Dibenz(a,h)anthracene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Dibenzofuran	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Di-n-butylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
1,2-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
1,3-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
1,4-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
3,3-Dichlorobenzidine	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2,4-Dichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Diethylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2,4-Dimethylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Dimethylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2,4-Dinitrophenol	ND	2.8	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2,4-Dinitrotoluene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2,6-Dinitrotoluene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Di-n-octylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
1,2-Diphenylhydrazine/Azobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Fluoranthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Fluorene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Hexachlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Hexachlorobutadiene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Hexachloroethane	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Indeno(1,2,3-cd)pyrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Isophorone	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2-Methylnaphthalene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB





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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-5 (6-8')

Sampled: 12/9/2019 10:20

Sample ID: 19L0400-05

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
3/4-Methylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Naphthalene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Nitrobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2-Nitrophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
4-Nitrophenol	ND	2.8	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Pentachlorophenol	ND	1.4	mg/Kg dry	4	V-05	SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Phenanthrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Phenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Pyrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
1,2,4-Trichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2,4,5-Trichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
2,4,6-Trichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:30	KLB
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
2-Fluorophenol	50.1	30-130						12/13/19 21:30	
Phenol-d6	54.0	30-130						12/13/19 21:30	
Nitrobenzene-d5	48.1	30-130						12/13/19 21:30	
2-Fluorobiphenyl	54.0	30-130						12/13/19 21:30	
2,4,6-Tribromophenol	33.8	30-130						12/13/19 21:30	
p-Terphenyl-d14	52.3	30-130						12/13/19 21:30	

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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-5 (6-8')

Sampled: 12/9/2019 10:20

Sample ID: 19L0400-05

Sample Matrix: Soil

## Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Arsenic	17	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Barium	28	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Beryllium	0.34	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Cadmium	0.27	0.18	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Chromium	29	0.36	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Lead	27	0.53	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Mercury	ND	0.026	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 12:02	CJV
Nickel	24	0.36	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Silver	ND	0.36	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 21:48	MJH
Vanadium	70	0.71	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH
Zinc	49	0.71	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:27	MJH



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-5 (6-8')

Sampled: 12/9/2019 10:20

Sample ID: 19L0400-05

Sample Matrix: Soil

## Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.7		% Wt	1		SM 2540G	12/11/19	12/11/19 15:05	adb

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-6 (3-5')

Sampled: 12/9/2019 10:55

Sample ID: 19L0400-06

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Acenaphthylene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Acetophenone	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Aniline	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Anthracene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Benzo(a)anthracene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Benzo(a)pyrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Benzo(b)fluoranthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Benzo(g,h,i)perylene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Benzo(k)fluoranthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Bis(2-chloroethoxy)methane	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Bis(2-chloroethyl)ether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Bis(2-chloroisopropyl)ether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Bis(2-Ethylhexyl)phthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
4-Bromophenylphenylether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
3-Butylbenzylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
4-Chloroaniline	ND	2.8	mg/Kg dry	4	V-34	SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2-Chloronaphthalene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2-Chlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Chrysene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Dibenz(a,h)anthracene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Dibenzofuran	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Di-n-butylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
1,2-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
1,3-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
1,4-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
3,3-Dichlorobenzidine	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2,4-Dichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Diethylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2,4-Dimethylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Dimethylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2,4-Dinitrophenol	ND	2.8	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2,4-Dinitrotoluene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2,6-Dinitrotoluene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Di-n-octylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
1,2-Diphenylhydrazine/Azobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Fluoranthene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Fluorene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Hexachlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Hexachlorobutadiene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Hexachloroethane	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Indeno(1,2,3-cd)pyrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Isophorone	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2-Methylnaphthalene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-6 (3-5')

Sampled: 12/9/2019 10:55

Sample ID: 19L0400-06

Sample Matrix: Soil

Sample Flags: RL-08

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
3/4-Methylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Naphthalene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Nitrobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2-Nitrophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
4-Nitrophenol	ND	2.8	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Pentachlorophenol	ND	1.4	mg/Kg dry	4	V-05	SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Phenanthrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Phenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
Pyrene	ND	0.72	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
1,2,4-Trichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2,4,5-Trichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB
2,4,6-Trichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/13/19 21:53	KLB

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	56.8	30-130	
Phenol-d6	60.9	30-130	
Nitrobenzene-d5	54.7	30-130	
2-Fluorobiphenyl	58.4	30-130	
2,4,6-Tribromophenol	42.7	30-130	
p-Terphenyl-d14	53.8	30-130	



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-6 (3-5')

Sampled: 12/9/2019 10:55

Sample ID: 19L0400-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Arsenic	11	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Barium	27	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Beryllium	0.30	0.17	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Cadmium	ND	0.17	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Chromium	32	0.34	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Lead	24	0.51	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Mercury	ND	0.027	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 12:04	CJV
Nickel	24	0.34	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Selenium	ND	3.4	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Silver	ND	0.34	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Thallium	ND	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 21:55	MJH
Vanadium	63	0.68	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH
Zinc	41	0.68	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:33	MJH

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-6 (3-5')

Sampled: 12/9/2019 10:55

Sample ID: 19L0400-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.7		% Wt	1		SM 2540G	12/11/19	12/11/19 15:05	adb



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-7 (3-5')

Sampled: 12/9/2019 11:30

Sample ID: 19L0400-07

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatle Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Acenaphthylene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Acetophenone	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Aniline	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Anthracene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Benzo(a)anthracene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Benzo(a)pyrene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Benzo(b)fluoranthene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Benzo(g,h,i)perylene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Benzo(k)fluoranthene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Bis(2-chloroethoxy)methane	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Bis(2-chloroethyl)ether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Bis(2-chloroisopropyl)ether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Bis(2-Ethylhexyl)phthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
4-Bromophenylphenylether	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
3-tylbenzylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
4-Chloroaniline	ND	2.8	mg/Kg dry	4	V-34	SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2-Chloronaphthalene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2-Chlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Chrysene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Dibenz(a,h)anthracene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Dibenzofuran	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Di-n-butylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
1,2-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
1,3-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
1,4-Dichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
3,3-Dichlorobenzidine	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2,4-Dichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Diethylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2,4-Dimethylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Dimethylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2,4-Dinitrophenol	ND	2.8	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2,4-Dinitrotoluene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2,6-Dinitrotoluene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Di-n-octylphthalate	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
1,2-Diphenylhydrazine/Azobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Fluoranthene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Fluorene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Hexachlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Hexachlorobutadiene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Hexachloroethane	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Indeno(1,2,3-cd)pyrene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Isophorone	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2-Methylnaphthalene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-7 (3-5')

Sampled: 12/9/2019 11:30

Sample ID: 19L0400-07

Sample Matrix: Soil

Sample Flags: RL-08

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
3/4-Methylphenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Naphthalene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Nitrobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2-Nitrophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
4-Nitrophenol	ND	2.8	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Pentachlorophenol	ND	1.4	mg/Kg dry	4	V-05	SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Phenanthrene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Phenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
Pyrene	ND	0.71	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
1,2,4-Trichlorobenzene	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2,4,5-Trichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB
2,4,6-Trichlorophenol	ND	1.4	mg/Kg dry	4		SW-846 8270D-E	12/11/19	12/14/19 14:50	KLB

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	54.2	30-130	12/14/19 14:50
Phenol-d6	57.6	30-130	12/14/19 14:50
Nitrobenzene-d5	50.4	30-130	12/14/19 14:50
2-Fluorobiphenyl	59.7	30-130	12/14/19 14:50
2,4,6-Tribromophenol	46.5	30-130	12/14/19 14:50
p-Terphenyl-d14	61.7	30-130	12/14/19 14:50

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-7 (3-5')

Sampled: 12/9/2019 11:30

Sample ID: 19L0400-07

Sample Matrix: Soil

## Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Arsenic	16	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Barium	28	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Beryllium	0.33	0.17	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Cadmium	0.24	0.17	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Chromium	32	0.34	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Lead	28	0.51	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Mercury	ND	0.026	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 12:05	CJV
Nickel	25	0.34	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Selenium	ND	3.4	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Silver	ND	0.34	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Thallium	ND	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 22:01	MJH
Vanadium	61	0.67	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH
Zinc	44	0.67	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:39	MJH

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-7 (3-5')

Sampled: 12/9/2019 11:30

Sample ID: 19L0400-07

Sample Matrix: Soil

## Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	95.7		% Wt	1		SM 2540G	12/11/19	12/11/19 15:06	adb

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-9 (0-2')

Sampled: 12/9/2019 11:55

Sample ID: 19L0400-08

Sample Matrix: Soil

## Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Acenaphthylene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Acetophenone	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Aniline	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Anthracene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Benzo(a)anthracene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Benzo(a)pyrene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Benzo(b)fluoranthene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Benzo(g,h,i)perylene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Benzo(k)fluoranthene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Bis(2-chloroethoxy)methane	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Bis(2-chloroethyl)ether	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Bis(2-chloroisopropyl)ether	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
4-Bromophenylphenylether	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Butylbenzylphthalate	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
4-Chloroaniline	ND	0.68	mg/Kg dry	1	V-34	SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2-Chloronaphthalene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2-Chlorophenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Chrysene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Dibenz(a,h)anthracene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Dibenzofuran	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Di-n-butylphthalate	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
1,2-Dichlorobenzene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
1,3-Dichlorobenzene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
1,4-Dichlorobenzene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
3,3-Dichlorobenzidine	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2,4-Dichlorophenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Diethylphthalate	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2,4-Dimethylphenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Dimethylphthalate	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2,4-Dinitrophenol	ND	0.68	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2,4-Dinitrotoluene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2,6-Dinitrotoluene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Di-n-octylphthalate	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
1,2-Diphenylhydrazine/Azobenzene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Fluoranthene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Fluorene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Hexachlorobenzene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Hexachlorobutadiene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Hexachloroethane	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Isophorone	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2-Methylnaphthalene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB



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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-9 (0-2')

Sampled: 12/9/2019 11:55

Sample ID: 19L0400-08

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
3/4-Methylphenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Naphthalene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Nitrobenzene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2-Nitrophenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
4-Nitrophenol	ND	0.68	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Pentachlorophenol	ND	0.35	mg/Kg dry	1	V-05	SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Phenanthrene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Phenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
Pyrene	ND	0.17	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
1,2,4-Trichlorobenzene	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2,4,5-Trichlorophenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB
2,4,6-Trichlorophenol	ND	0.35	mg/Kg dry	1		SW-846 8270D-E	12/11/19	12/13/19 18:24	KLB

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	70.6	30-130	12/13/19 18:24
Phenol-d6	73.6	30-130	12/13/19 18:24
Nitrobenzene-d5	65.8	30-130	12/13/19 18:24
2-Fluorobiphenyl	76.7	30-130	12/13/19 18:24
2,4,6-Tribromophenol	77.9	30-130	12/13/19 18:24
p-Terphenyl-d14	78.6	30-130	12/13/19 18:24

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-9 (0-2')

Sampled: 12/9/2019 11:55

Sample ID: 19L0400-08

Sample Matrix: Soil

## Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Arsenic	ND	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Barium	24	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Beryllium	0.21	0.17	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Cadmium	ND	0.17	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Chromium	8.7	0.33	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Lead	4.5	0.50	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Mercury	ND	0.026	mg/Kg dry	1		SW-846 7471B	12/11/19	12/12/19 11:43	CJV
Nickel	7.5	0.33	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Selenium	ND	3.3	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Silver	ND	0.33	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Thallium	ND	1.7	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 22:07	MJH
Vanadium	22	0.67	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH
Zinc	23	0.67	mg/Kg dry	1		SW-846 6010D	12/13/19	12/16/19 16:45	MJH



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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-9 (0-2')

Sampled: 12/9/2019 11:55

Sample ID: 19L0400-08

Sample Matrix: Soil

## Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	97.1		% Wt	1		SM 2540G	12/11/19	12/11/19 15:06	adb

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-2 (6-8')

Sampled: 12/9/2019 08:40

Sample ID: 19L0400-09

Sample Matrix: Soil

## Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1221 [1]	ND	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1232 [1]	ND	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1242 [1]	ND	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1248 [1]	ND	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1254 [2]	15	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1260 [1]	51	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1262 [1]	ND	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Aroclor-1268 [1]	ND	6.5	mg/Kg dry	200		SW-846 8082A	12/12/19	12/14/19 3:10	TG
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
Decachlorobiphenyl [1]	▪	30-150			S-01			12/14/19 3:10	
Decachlorobiphenyl [2]	▪	30-150			S-01			12/14/19 3:10	
Tetrachloro-m-xylene [1]	▪	30-150			S-01			12/14/19 3:10	
Tetrachloro-m-xylene [2]	▪	30-150			S-01			12/14/19 3:10	





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Project Location: 240 Beaver St. Waltham, MA

Sample Description:

Work Order: 19L0400

Date Received: 12/10/2019

Field Sample #: Gp4-2 (6-8')

Sampled: 12/9/2019 08:40

Sample ID: 19L0400-09

Sample Matrix: Soil

## Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	61.7		% Wt	1		SM 2540G	12/11/19	12/11/19 15:06	adb

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

### Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19L0400-01 [Gp4-1 (3-5'')]	B248096	12/11/19
19L0400-02 [Gp4-2 (4-6'')]	B248096	12/11/19
19L0400-03 [Gp4-3 (4-6'')]	B248096	12/11/19
19L0400-04 [Gp4-4 (3-5'')]	B248096	12/11/19
19L0400-05 [Gp4-5 (6-8'')]	B248096	12/11/19
19L0400-06 [Gp4-6 (3-5'')]	B248096	12/11/19
19L0400-07 [Gp4-7 (3-5'')]	B248096	12/11/19
19L0400-08 [Gp4-9 (0-2'')]	B248096	12/11/19
19L0400-09 [Gp4-2 (6-8'')]	B248096	12/11/19

Prep Method: SW-846 3050B-SW-846 6010D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19L0400-01 [Gp4-1 (3-5'')]	B248351	1.51	50.0	12/13/19
19L0400-02 [Gp4-2 (4-6'')]	B248351	1.55	50.0	12/13/19
19L0400-03 [Gp4-3 (4-6'')]	B248351	1.52	50.0	12/13/19
19L0400-04 [Gp4-4 (3-5'')]	B248351	1.51	50.0	12/13/19
19L0400-05 [Gp4-5 (6-8'')]	B248351	1.52	50.0	12/13/19
19L0400-06 [Gp4-6 (3-5'')]	B248351	1.56	50.0	12/13/19
19L0400-07 [Gp4-7 (3-5'')]	B248351	1.55	50.0	12/13/19
19L0400-08 [Gp4-9 (0-2'')]	B248351	1.54	50.0	12/13/19

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19L0400-01 [Gp4-1 (3-5'')]	B248100	0.598	50.0	12/11/19
19L0400-02 [Gp4-2 (4-6'')]	B248100	0.592	50.0	12/11/19
19L0400-03 [Gp4-3 (4-6'')]	B248100	0.606	50.0	12/11/19
19L0400-04 [Gp4-4 (3-5'')]	B248100	0.591	50.0	12/11/19
19L0400-05 [Gp4-5 (6-8'')]	B248100	0.624	50.0	12/11/19
19L0400-06 [Gp4-6 (3-5'')]	B248100	0.591	50.0	12/11/19
19L0400-07 [Gp4-7 (3-5'')]	B248100	0.614	50.0	12/11/19
19L0400-08 [Gp4-9 (0-2'')]	B248100	0.605	50.0	12/11/19

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19L0400-09 [Gp4-2 (6-8'')]	B248210	10.0	10.0	12/12/19

Prep Method: SW-846 3546-SW-846 8270D-E

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19L0400-01 [Gp4-1 (3-5'')]	B248158	30.2	1.00	12/11/19
19L0400-02 [Gp4-2 (4-6'')]	B248158	30.0	1.00	12/11/19
19L0400-03 [Gp4-3 (4-6'')]	B248158	30.7	1.00	12/11/19
19L0400-04 [Gp4-4 (3-5'')]	B248158	30.5	1.00	12/11/19
19L0400-05 [Gp4-5 (6-8'')]	B248158	30.5	1.00	12/11/19
19L0400-06 [Gp4-6 (3-5'')]	B248158	30.4	1.00	12/11/19
19L0400-07 [Gp4-7 (3-5'')]	B248158	30.0	1.00	12/11/19
19L0400-08 [Gp4-9 (0-2'')]	B248158	30.2	1.00	12/11/19

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**Sample Extraction Data**

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## QUALITY CONTROL

## Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B248158 - SW-846 3546										
Blank (B248158-BLK1) Prepared: 12/11/19 Analyzed: 12/12/19										
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
4-Chloroaniline	ND	0.65	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
Chlorophenol	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.65	mg/Kg wet							
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
ohtalene	ND	0.17	mg/Kg wet							
robenzene	ND	0.34	mg/Kg wet							
2-Nitrophenol	ND	0.34	mg/Kg wet							
4-Nitrophenol	ND	0.65	mg/Kg wet							
Pentachlorophenol	ND	0.34	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							

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## QUALITY CONTROL

## Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B248158 - SW-846 3546</b>										
<b>Blank (B248158-BLK1)</b>										
Prepared: 12/11/19 Analyzed: 12/12/19										
Phenol	ND	0.34	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							V-05
Pyridine	ND	0.34	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet							
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet							
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet							
Surrogate: 2-Fluorophenol	5.18		mg/Kg wet	6.60		78.5	30-130			
Surrogate: Phenol-d6	5.21		mg/Kg wet	6.60		79.0	30-130			
Surrogate: Nitrobenzene-d5	2.38		mg/Kg wet	3.30		72.2	30-130			
Surrogate: 2-Fluorobiphenyl	2.99		mg/Kg wet	3.30		90.6	30-130			
Surrogate: 2,4,6-Tribromophenol	4.45		mg/Kg wet	6.60		67.4	30-130			
Surrogate: p-Terphenyl-d14	2.40		mg/Kg wet	3.30		72.8	30-130			
<b>LCS (B248158-BS1)</b>										
Prepared: 12/11/19 Analyzed: 12/12/19										
Acenaphthene	1.18	0.17	mg/Kg wet	1.63		72.6	40-140			
Acenaphthylene	1.24	0.17	mg/Kg wet	1.63		76.2	40-140			
Acetophenone	1.19	0.33	mg/Kg wet	1.63		73.1	40-140			
Aniline	0.814	0.33	mg/Kg wet	1.63		50.0	40-140			
Anthracene	1.29	0.17	mg/Kg wet	1.63		79.1	40-140			
Benzo(a)anthracene	1.28	0.17	mg/Kg wet	1.63		78.7	40-140			
Benzo(a)pyrene	1.20	0.17	mg/Kg wet	1.63		73.9	40-140			
Benzo(b)fluoranthene	1.21	0.17	mg/Kg wet	1.63		74.2	40-140			
Benzo(g,h,i)perylene	1.20	0.17	mg/Kg wet	1.63		73.9	40-140			
Benzo(k)fluoranthene	1.24	0.17	mg/Kg wet	1.63		75.9	40-140			
Bis(2-chloroethoxy)methane	1.24	0.33	mg/Kg wet	1.63		75.9	40-140			
Bis(2-chloroethyl)ether	1.16	0.33	mg/Kg wet	1.63		71.5	40-140			
Bis(2-chloroisopropyl)ether	1.33	0.33	mg/Kg wet	1.63		81.8	40-140			
Bis(2-Ethylhexyl)phthalate	1.27	0.33	mg/Kg wet	1.63		78.2	40-140			
4-Bromophenylphenylether	1.30	0.33	mg/Kg wet	1.63		79.5	40-140			
Butylbenzylphthalate	1.31	0.33	mg/Kg wet	1.63		80.6	40-140			
4-Chloroaniline	0.991	0.64	mg/Kg wet	1.63		60.8	15-140			†
2-Chloronaphthalene	1.05	0.33	mg/Kg wet	1.63		64.3	40-140			
2-Chlorophenol	1.17	0.33	mg/Kg wet	1.63		72.1	30-130			
Chrysene	1.21	0.17	mg/Kg wet	1.63		74.2	40-140			
Dibenz(a,h)anthracene	1.15	0.17	mg/Kg wet	1.63		70.5	40-140			
Dibenzo furan	1.28	0.33	mg/Kg wet	1.63		78.3	40-140			
Di-n-butylphthalate	1.24	0.33	mg/Kg wet	1.63		76.3	40-140			
1,2-Dichlorobenzene	1.07	0.33	mg/Kg wet	1.63		65.6	40-140			
1,3-Dichlorobenzene	1.06	0.33	mg/Kg wet	1.63		64.9	40-140			
1,4-Dichlorobenzene	1.07	0.33	mg/Kg wet	1.63		65.7	40-140			
3,3-Dichlorobenzidine	1.07	0.17	mg/Kg wet	1.63		66.0	40-140			
2,4-Dichlorophenol	1.25	0.33	mg/Kg wet	1.63		76.7	30-130			
Diethylphthalate	1.23	0.33	mg/Kg wet	1.63		75.3	40-140			
2,4-Dimethylphenol	1.26	0.33	mg/Kg wet	1.63		77.4	30-130			
Dimethylphthalate	1.26	0.33	mg/Kg wet	1.63		77.3	40-140			
2,4-Dinitrophenol	0.420	0.64	mg/Kg wet	1.63		25.8	15-140			†
2,4-Dinitrotoluene	1.22	0.33	mg/Kg wet	1.63		74.8	40-140			
2,6-Dinitrotoluene	1.33	0.33	mg/Kg wet	1.63		82.0	40-140			
n-octylphthalate	1.31	0.33	mg/Kg wet	1.63		80.3	40-140			
,2-Diphenylhydrazine/Azobenzene	1.27	0.33	mg/Kg wet	1.63		77.8	40-140			
Fluoranthene	1.23	0.17	mg/Kg wet	1.63		75.8	40-140			
Fluorene	1.23	0.17	mg/Kg wet	1.63		75.7	40-140			

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## QUALITY CONTROL

## Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B248158 - SW-846 3546										
LCS (B248158-BS1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Hexachlorobenzene	1.27	0.33	mg/Kg wet	1.63		77.9	40-140			
Hexachlorobutadiene	1.10	0.33	mg/Kg wet	1.63		67.7	40-140			
Hexachloroethane	1.06	0.33	mg/Kg wet	1.63		65.1	40-140			
Indeno(1,2,3-cd)pyrene	1.25	0.17	mg/Kg wet	1.63		76.5	40-140			
Isophorone	1.23	0.33	mg/Kg wet	1.63		75.8	40-140			
2-Methylnaphthalene	1.32	0.17	mg/Kg wet	1.63		80.9	40-140			
2-Methylphenol	1.15	0.33	mg/Kg wet	1.63		70.8	30-130			
3/4-Methylphenol	1.23	0.33	mg/Kg wet	1.63		75.6	30-130			
Naphthalene	1.17	0.17	mg/Kg wet	1.63		71.7	40-140			
Nitrobenzene	1.12	0.33	mg/Kg wet	1.63		68.7	40-140			
2-Nitrophenol	1.18	0.33	mg/Kg wet	1.63		72.6	30-130			
4-Nitrophenol	1.11	0.64	mg/Kg wet	1.63		68.4	15-140			†
Pentachlorophenol	0.955	0.33	mg/Kg wet	1.63		58.6	30-130			
Phenanthrene	1.29	0.17	mg/Kg wet	1.63		79.4	40-140			
Phenol	1.17	0.33	mg/Kg wet	1.63		71.5	15-140			†
Pyrene	1.18	0.17	mg/Kg wet	1.63		72.3	40-140			V-05
Pyridine	0.716	0.33	mg/Kg wet	1.63		43.9	30-140			†
1,2,4-Trichlorobenzene	1.14	0.33	mg/Kg wet	1.63		70.2	40-140			
1,5-Trichlorophenol	1.25	0.33	mg/Kg wet	1.63		76.6	30-130			
1,4,6-Trichlorophenol	1.25	0.33	mg/Kg wet	1.63		77.0	30-130			
Surrogate: 2-Fluorophenol	5.08		mg/Kg wet	6.51		78.0	30-130			
Surrogate: Phenol-d6	5.04		mg/Kg wet	6.51		77.4	30-130			
Surrogate: Nitrobenzene-d5	2.44		mg/Kg wet	3.26		74.9	30-130			
Surrogate: 2-Fluorobiphenyl	3.11		mg/Kg wet	3.26		95.4	30-130			
Surrogate: 2,4,6-Tribromophenol	5.37		mg/Kg wet	6.51		82.4	30-130			
Surrogate: p-Terphenyl-d14	2.63		mg/Kg wet	3.26		80.8	30-130			
LCS Dup (B248158-BS1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Acenaphthene	1.18	0.17	mg/Kg wet	1.66		71.6	40-140	0.144	30	
Acenaphthylene	1.25	0.17	mg/Kg wet	1.66		75.7	40-140	0.878	30	
Acetophenone	1.23	0.34	mg/Kg wet	1.66		74.5	40-140	3.59	30	
Aniline	0.841	0.34	mg/Kg wet	1.66		50.8	40-140	3.35	30	
Anthracene	1.30	0.17	mg/Kg wet	1.66		78.3	40-140	0.574	30	
Benzo(a)anthracene	1.31	0.17	mg/Kg wet	1.66		78.9	40-140	1.87	30	
Benzo(a)pyrene	1.25	0.17	mg/Kg wet	1.66		75.6	40-140	3.89	30	
Benzo(b)fluoranthene	1.26	0.17	mg/Kg wet	1.66		76.1	40-140	4.12	30	
Benzo(g,h,i)perylene	1.19	0.17	mg/Kg wet	1.66		71.7	40-140	1.46	30	
Benzo(k)fluoranthene	1.30	0.17	mg/Kg wet	1.66		78.6	40-140	5.14	30	
Bis(2-chloroethoxy)methane	1.30	0.34	mg/Kg wet	1.66		78.8	40-140	5.31	30	
Bis(2-chloroethyl)ether	1.22	0.34	mg/Kg wet	1.66		73.8	40-140	4.92	30	
Bis(2-chloroisopropyl)ether	1.39	0.34	mg/Kg wet	1.66		83.8	40-140	4.03	30	
Bis(2-Ethylhexyl)phthalate	1.37	0.34	mg/Kg wet	1.66		82.6	40-140	7.14	30	
4-Bromophenylphenylether	1.28	0.34	mg/Kg wet	1.66		77.0	40-140	1.55	30	
Butylbenzylphthalate	1.29	0.34	mg/Kg wet	1.66		77.8	40-140	1.97	30	
4-Chloroaniline	1.04	0.66	mg/Kg wet	1.66		62.7	15-140	4.59	30	†
2-Chloronaphthalene	1.09	0.34	mg/Kg wet	1.66		65.6	40-140	3.55	30	
1-Chlorophenol	1.23	0.34	mg/Kg wet	1.66		74.6	30-130	4.97	30	
1,2-Dichlorobenzene	1.30	0.17	mg/Kg wet	1.66		78.7	40-140	7.52	30	
Dibenz(a,h)anthracene	1.16	0.17	mg/Kg wet	1.66		70.1	40-140	0.959	30	
Dibenzofuran	1.29	0.34	mg/Kg wet	1.66		78.1	40-140	1.36	30	
Di-n-butylphthalate	1.30	0.34	mg/Kg wet	1.66		78.4	40-140	4.36	30	
1,2-Dichlorobenzene	1.12	0.34	mg/Kg wet	1.66		67.8	40-140	4.94	30	

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## QUALITY CONTROL

## Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B248158 - SW-846 3546										
LCS Dup (B248158-BSD1)					Prepared: 12/11/19 Analyzed: 12/12/19					
1,3-Dichlorobenzene	1.09	0.34	mg/Kg wet	1.66		65.7	40-140	2.87	30	
1,4-Dichlorobenzene	1.11	0.34	mg/Kg wet	1.66		67.3	40-140	4.08	30	
3,3-Dichlorobenzidine	1.05	0.17	mg/Kg wet	1.66		63.7	40-140	1.88	30	
2,4-Dichlorophenol	1.28	0.34	mg/Kg wet	1.66		77.2	30-130	2.29	30	
Diethylphthalate	1.25	0.34	mg/Kg wet	1.66		75.4	40-140	1.83	30	
2,4-Dimethylphenol	1.30	0.34	mg/Kg wet	1.66		78.6	30-130	3.18	30	
Dimethylphthalate	1.25	0.34	mg/Kg wet	1.66		75.3	40-140	0.980	30	
2,4-Dinitrophenol	0.430	0.66	mg/Kg wet	1.66		26.0	15-140	2.41	30	†
2,4-Dinitrotoluene	1.29	0.34	mg/Kg wet	1.66		77.8	40-140	5.52	30	
2,6-Dinitrotoluene	1.32	0.34	mg/Kg wet	1.66		79.9	40-140	0.853	30	
Di-n-octylphthalate	1.40	0.34	mg/Kg wet	1.66		84.6	40-140	6.88	30	
1,2-Diphenylhydrazine/Azobenzene	1.30	0.34	mg/Kg wet	1.66		78.6	40-140	2.72	30	
Fluoranthene	1.30	0.17	mg/Kg wet	1.66		78.3	40-140	4.86	30	
Fluorene	1.28	0.17	mg/Kg wet	1.66		77.6	40-140	4.07	30	
Hexachlorobenzene	1.26	0.34	mg/Kg wet	1.66		76.0	40-140	0.854	30	
Hexachlorobutadiene	1.16	0.34	mg/Kg wet	1.66		70.1	40-140	5.10	30	
Hexachloroethane	1.09	0.34	mg/Kg wet	1.66		66.0	40-140	2.95	30	
Indeno(1,2,3-cd)pyrene	1.25	0.17	mg/Kg wet	1.66		75.6	40-140	0.406	30	
Isophorone	1.32	0.34	mg/Kg wet	1.66		79.4	40-140	6.30	30	
Methylnaphthalene	1.41	0.17	mg/Kg wet	1.66		85.0	40-140	6.56	30	
Methylphenol	1.23	0.34	mg/Kg wet	1.66		74.3	30-130	6.44	30	
3/4-Methylphenol	1.29	0.34	mg/Kg wet	1.66		77.9	30-130	4.74	30	
Naphthalene	1.23	0.17	mg/Kg wet	1.66		74.3	40-140	5.15	30	
Nitrobenzene	1.22	0.34	mg/Kg wet	1.66		73.7	40-140	8.72	30	
2-Nitrophenol	1.26	0.34	mg/Kg wet	1.66		76.4	30-130	6.77	30	
4-Nitrophenol	1.18	0.66	mg/Kg wet	1.66		71.4	15-140	5.88	30	†
Pentachlorophenol	0.962	0.34	mg/Kg wet	1.66		58.1	30-130	0.751	30	
Phenanthrene	1.31	0.17	mg/Kg wet	1.66		79.4	40-140	1.67	30	
Phenol	1.21	0.34	mg/Kg wet	1.66		73.0	15-140	3.66	30	†
Pyrene	1.19	0.17	mg/Kg wet	1.66		71.8	40-140	0.976	30	V-05
Pyridine	0.733	0.34	mg/Kg wet	1.66		44.3	30-140	2.46	30	†
1,2,4-Trichlorobenzene	1.20	0.34	mg/Kg wet	1.66		72.8	40-140	5.17	30	
2,4,5-Trichlorophenol	1.28	0.34	mg/Kg wet	1.66		77.2	30-130	2.37	30	
2,4,6-Trichlorophenol	1.21	0.34	mg/Kg wet	1.66		73.3	30-130	3.26	30	
Surrogate: 2-Fluorophenol	5.17		mg/Kg wet	6.62		78.0	30-130			
Surrogate: Phenol-d6	5.20		mg/Kg wet	6.62		78.5	30-130			
Surrogate: Nitrobenzene-d5	2.52		mg/Kg wet	3.31		76.1	30-130			
Surrogate: 2-Fluorobiphenyl	2.98		mg/Kg wet	3.31		90.0	30-130			
Surrogate: 2,4,6-Tribromophenol	5.40		mg/Kg wet	6.62		81.5	30-130			
Surrogate: p-Terphenyl-d14	2.59		mg/Kg wet	3.31		78.1	30-130			
Matrix Spike (B248158-MS1)					Source: 19L0400-01 Prepared: 12/11/19 Analyzed: 12/12/19					
Acenaphthene	0.804	0.36	mg/Kg dry	1.76	ND	45.6	40-140			
Acenaphthylene	0.809	0.36	mg/Kg dry	1.76	ND	45.9	40-140			
Acetophenone	0.828	0.72	mg/Kg dry	1.76	ND	47.0	40-140			
Aniline	0.540	0.72	mg/Kg dry	1.76	ND	30.6	40-140			MS-09
Anthracene	0.870	0.36	mg/Kg dry	1.76	ND	49.4	40-140			
Benzo(a)anthracene	0.897	0.36	mg/Kg dry	1.76	ND	50.9	40-140			
Benzo(a)pyrene	0.870	0.36	mg/Kg dry	1.76	ND	49.4	40-140			
Benzo(b)fluoranthene	0.935	0.36	mg/Kg dry	1.76	ND	53.1	40-140			
Benzo(g,h,i)perylene	0.797	0.36	mg/Kg dry	1.76	ND	45.3	40-140			
Benzo(k)fluoranthene	0.830	0.36	mg/Kg dry	1.76	ND	47.1	40-140			

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## QUALITY CONTROL

## Semivolatle Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B248158 - SW-846 3546										
Matrix Spike (B248158-MS1)		Source: 19L0400-01		Prepared: 12/11/19 Analyzed: 12/12/19						
Bis(2-chloroethoxy)methane	0.892	0.72	mg/Kg dry	1.76	ND	50.7	40-140			
Bis(2-chloroethyl)ether	0.858	0.72	mg/Kg dry	1.76	ND	48.7	40-140			
Bis(2-chloroisopropyl)ether	0.958	0.72	mg/Kg dry	1.76	ND	54.4	40-140			
Bis(2-Ethylhexyl)phthalate	1.04	0.72	mg/Kg dry	1.76	ND	59.2	40-140			
4-Bromophenylphenylether	0.783	0.72	mg/Kg dry	1.76	ND	44.4	40-140			
Butylbenzylphthalate	0.903	0.72	mg/Kg dry	1.76	ND	51.3	40-140			
4-Chloroaniline	0.628	1.4	mg/Kg dry	1.76	ND	35.6 *	40-140			MS-09
2-Chloronaphthalene	0.677	0.72	mg/Kg dry	1.76	ND	38.4 *	40-140			MS-22
2-Chlorophenol	0.802	0.72	mg/Kg dry	1.76	ND	45.5	30-130			
Chrysene	0.915	0.36	mg/Kg dry	1.76	ND	52.0	40-140			
Dibenz(a,h)anthracene	0.729	0.36	mg/Kg dry	1.76	ND	41.4	40-140			
Dibenzofuran	0.858	0.72	mg/Kg dry	1.76	ND	48.7	40-140			
Di-n-butylphthalate	0.896	0.72	mg/Kg dry	1.76	ND	50.9	40-140			
1,2-Dichlorobenzene	0.725	0.72	mg/Kg dry	1.76	ND	41.2	40-140			
1,3-Dichlorobenzene	0.704	0.72	mg/Kg dry	1.76	ND	40.0	40-140			
1,4-Dichlorobenzene	0.699	0.72	mg/Kg dry	1.76	ND	39.7 *	40-140			MS-22
3,3-Dichlorobenzidine	0.251	0.36	mg/Kg dry	1.76	ND	14.2 *	40-140			MS-09
2,4-Dichlorophenol	0.857	0.72	mg/Kg dry	1.76	ND	48.6	30-130			
2-Ethylphthalate	0.921	0.72	mg/Kg dry	1.76	ND	52.3	40-140			
2,4-Dimethylphenol	0.850	0.72	mg/Kg dry	1.76	ND	48.3	30-130			
Dimethylphthalate	0.859	0.72	mg/Kg dry	1.76	ND	48.8	40-140			
2,4-Dinitrophenol	0.710	1.4	mg/Kg dry	1.76	ND	40.3	30-130			
2,4-Dinitrotoluene	0.812	0.72	mg/Kg dry	1.76	ND	46.1	40-140			
2,6-Dinitrotoluene	0.859	0.72	mg/Kg dry	1.76	ND	48.8	40-140			
Di-n-octylphthalate	1.11	0.72	mg/Kg dry	1.76	ND	63.0	40-140			
1,2-Diphenylhydrazine/Azobenzene	0.839	0.72	mg/Kg dry	1.76	ND	47.6	40-140			
Fluoranthene	1.03	0.36	mg/Kg dry	1.76	ND	58.8	40-140			
Fluorene	0.870	0.36	mg/Kg dry	1.76	ND	49.4	40-140			
Hexachlorobenzene	0.684	0.72	mg/Kg dry	1.76	ND	38.8 *	40-140			MS-22
Hexachlorobutadiene	0.752	0.72	mg/Kg dry	1.76	ND	42.7	40-140			
Hexachloroethane	0.686	0.72	mg/Kg dry	1.76	ND	39.0 *	40-140			MS-09
Indeno(1,2,3-cd)pyrene	0.842	0.36	mg/Kg dry	1.76	ND	47.8	40-140			
Isophorone	0.905	0.72	mg/Kg dry	1.76	ND	51.4	40-140			
2-Methylnaphthalene	0.931	0.36	mg/Kg dry	1.76	ND	52.8	40-140			
2-Methylphenol	0.854	0.72	mg/Kg dry	1.76	ND	48.5	30-130			
3/4-Methylphenol	0.861	0.72	mg/Kg dry	1.76	ND	48.9	30-130			
Naphthalene	0.817	0.36	mg/Kg dry	1.76	ND	46.4	40-140			
Nitrobenzene	0.840	0.72	mg/Kg dry	1.76	ND	47.7	40-140			
2-Nitrophenol	0.797	0.72	mg/Kg dry	1.76	ND	45.3	30-130			
4-Nitrophenol	0.919	1.4	mg/Kg dry	1.76	ND	52.2	30-130			
Pentachlorophenol	0.528	0.72	mg/Kg dry	1.76	ND	30.0	30-130			
Phenanthrene	0.968	0.36	mg/Kg dry	1.76	ND	55.0	40-140			
Phenol	0.830	0.72	mg/Kg dry	1.76	ND	47.2	30-130			
Pyrene	0.980	0.36	mg/Kg dry	1.76	0.242	41.9	40-140			V-05
1,2,4-Trichlorobenzene	0.778	0.72	mg/Kg dry	1.76	ND	44.2	40-140			
2,4,5-Trichlorophenol	0.814	0.72	mg/Kg dry	1.76	ND	46.2	30-130			
2,6-Trichlorophenol	0.810	0.72	mg/Kg dry	1.76	ND	46.0	30-130			
Surrogate: 2-Fluorophenol	3.62		mg/Kg dry	7.04		51.4	30-130			
Surrogate: Phenol-d6	3.65		mg/Kg dry	7.04		51.8	30-130			
Surrogate: Nitrobenzene-d5	1.71		mg/Kg dry	3.52		48.7	30-130			
Surrogate: 2-Fluorobiphenyl	2.07		mg/Kg dry	3.52		58.8	30-130			
Surrogate: 2,4,6-Tribromophenol	3.32		mg/Kg dry	7.04		47.2	30-130			



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## QUALITY CONTROL

## Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B248158 - SW-846 3546</b>										
<b>Matrix Spike (B248158-MS1)</b>		<b>Source: 19L0400-01</b>			<b>Prepared: 12/11/19 Analyzed: 12/12/19</b>					
Surrogate: p-Terphenyl-d14	1.73		mg/Kg dry	3.52		49.1	30-130			
<b>Matrix Spike Dup (B248158-MSD1)</b>		<b>Source: 19L0400-01</b>			<b>Prepared: 12/11/19 Analyzed: 12/12/19</b>					
Acenaphthene	0.859	0.36	mg/Kg dry	1.76	ND	49.0	40-140	6.69	30	
Acenaphthylene	0.872	0.36	mg/Kg dry	1.76	ND	49.7	40-140	7.53	30	
Acetophenone	0.911	0.72	mg/Kg dry	1.76	ND	51.9	40-140	9.53	30	
Aniline	0.517	0.72	mg/Kg dry	1.76	ND	29.5	* 40-140	4.19	30	MS-09
Anthracene	0.917	0.36	mg/Kg dry	1.76	ND	52.2	40-140	5.26	30	
Benzo(a)anthracene	0.995	0.36	mg/Kg dry	1.76	ND	56.7	40-140	10.4	30	
Benzo(a)pyrene	0.961	0.36	mg/Kg dry	1.76	ND	54.8	40-140	9.96	30	
Benzo(b)fluoranthene	1.04	0.36	mg/Kg dry	1.76	ND	59.3	40-140	10.7	30	
Benzo(g,h,i)perylene	0.775	0.36	mg/Kg dry	1.76	ND	44.2	40-140	2.84	30	
Benzo(k)fluoranthene	0.894	0.36	mg/Kg dry	1.76	ND	51.0	40-140	7.50	30	
Bis(2-chloroethoxy)methane	0.949	0.72	mg/Kg dry	1.76	ND	54.1	40-140	6.16	30	
Bis(2-chloroethyl)ether	0.925	0.72	mg/Kg dry	1.76	ND	52.7	40-140	7.56	30	
Bis(2-chloroisopropyl)ether	1.04	0.72	mg/Kg dry	1.76	ND	59.2	40-140	8.05	30	
Bis(2-Ethylhexyl)phthalate	1.12	0.72	mg/Kg dry	1.76	ND	63.8	40-140	7.28	30	
4-Bromophenylphenylether	0.830	0.72	mg/Kg dry	1.76	ND	47.3	40-140	5.86	30	
4-tert-butylbenzylphthalate	0.944	0.72	mg/Kg dry	1.76	ND	53.8	40-140	4.46	30	
4-Chloroaniline	0.661	1.4	mg/Kg dry	1.76	ND	37.6	* 40-140	5.13	30	MS-09
2-Chloronaphthalene	0.740	0.72	mg/Kg dry	1.76	ND	42.2	40-140	8.90	30	
2-Chlorophenol	0.891	0.72	mg/Kg dry	1.76	ND	50.8	30-130	10.6	30	
Chrysene	1.00	0.36	mg/Kg dry	1.76	ND	57.0	40-140	8.99	30	
Dibenz(a,h)anthracene	0.717	0.36	mg/Kg dry	1.76	ND	40.8	40-140	1.69	30	
Dibenzofuran	0.918	0.72	mg/Kg dry	1.76	ND	52.3	40-140	6.72	30	
Di-n-butylphthalate	0.951	0.72	mg/Kg dry	1.76	ND	54.2	40-140	5.99	30	
1,2-Dichlorobenzene	0.805	0.72	mg/Kg dry	1.76	ND	45.9	40-140	10.5	30	
1,3-Dichlorobenzene	0.779	0.72	mg/Kg dry	1.76	ND	44.4	40-140	10.0	30	
1,4-Dichlorobenzene	0.802	0.72	mg/Kg dry	1.76	ND	45.7	40-140	13.7	30	
3,3-Dichlorobenzidine	0.234	0.36	mg/Kg dry	1.76	ND	13.3	* 40-140		30	MS-09
2,4-Dichlorophenol	0.919	0.72	mg/Kg dry	1.76	ND	52.4	30-130	7.04	30	
Diethylphthalate	0.946	0.72	mg/Kg dry	1.76	ND	53.9	40-140	2.76	30	
2,4-Dimethylphenol	0.904	0.72	mg/Kg dry	1.76	ND	51.5	30-130	6.08	30	
Dimethylphthalate	0.913	0.72	mg/Kg dry	1.76	ND	52.0	40-140	6.02	30	
2,4-Dinitrophenol	0.697	1.4	mg/Kg dry	1.76	ND	39.7	30-130		30	
2,4-Dinitrotoluene	0.871	0.72	mg/Kg dry	1.76	ND	49.6	40-140	7.02	30	
2,6-Dinitrotoluene	0.939	0.72	mg/Kg dry	1.76	ND	53.5	40-140	8.98	30	
Di-n-octylphthalate	1.08	0.72	mg/Kg dry	1.76	ND	61.7	40-140	2.39	30	
1,2-Diphenylhydrazine/Azobenzene	0.866	0.72	mg/Kg dry	1.76	ND	49.3	40-140	3.13	30	
Fluoranthene	1.21	0.36	mg/Kg dry	1.76	ND	69.0	40-140	15.6	30	
Fluorene	0.939	0.36	mg/Kg dry	1.76	ND	53.5	40-140	7.60	30	
Hexachlorobenzene	0.739	0.72	mg/Kg dry	1.76	ND	42.1	40-140	7.68	30	
Hexachlorobutadiene	0.809	0.72	mg/Kg dry	1.76	ND	46.1	40-140	7.42	30	
Hexachloroethane	0.698	0.72	mg/Kg dry	1.76	ND	39.8	* 40-140	1.70	30	MS-09
Indeno(1,2,3-cd)pyrene	0.848	0.36	mg/Kg dry	1.76	ND	48.3	40-140	0.667	30	
Isophorone	0.981	0.72	mg/Kg dry	1.76	ND	55.9	40-140	8.02	30	
Methylnaphthalene	0.996	0.36	mg/Kg dry	1.76	ND	56.8	40-140	6.82	30	
Methylphenol	0.916	0.72	mg/Kg dry	1.76	ND	52.2	30-130	7.06	30	
3/4-Methylphenol	0.954	0.72	mg/Kg dry	1.76	ND	54.4	30-130	10.2	30	
Naphthalene	0.905	0.36	mg/Kg dry	1.76	ND	51.6	40-140	10.2	30	
Nitrobenzene	0.899	0.72	mg/Kg dry	1.76	ND	51.2	40-140	6.87	30	
2-Nitrophenol	0.850	0.72	mg/Kg dry	1.76	ND	48.4	30-130	6.41	30	

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## QUALITY CONTROL

## Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B248158 - SW-846 3546

Matrix Spike Dup (B248158-MSD1)

Source: 19L0400-01

Prepared: 12/11/19 Analyzed: 12/12/19

4-Nitrophenol	0.931	1.4	mg/Kg dry	1.76	ND	53.0	30-130	1.26	30	
Pentachlorophenol	0.713	0.72	mg/Kg dry	1.76	ND	40.6	30-130	29.8	30	
Phenanthrene	1.06	0.36	mg/Kg dry	1.76	ND	60.6	40-140	9.43	30	
Phenol	0.881	0.72	mg/Kg dry	1.76	ND	50.2	30-130	5.91	30	
Pyrene	1.13	0.36	mg/Kg dry	1.76	0.242	50.9	40-140	14.6	30	V-05
1,2,4-Trichlorobenzene	0.828	0.72	mg/Kg dry	1.76	ND	47.2	40-140	6.15	30	
2,4,5-Trichlorophenol	0.848	0.72	mg/Kg dry	1.76	ND	48.3	30-130	4.07	30	
2,4,6-Trichlorophenol	0.825	0.72	mg/Kg dry	1.76	ND	47.0	30-130	1.82	30	
Surrogate: 2-Fluorophenol	3.99		mg/Kg dry	7.02		56.9	30-130			
Surrogate: Phenol-d6	3.93		mg/Kg dry	7.02		55.9	30-130			
Surrogate: Nitrobenzene-d5	1.85		mg/Kg dry	3.51		52.7	30-130			
Surrogate: 2-Fluorobiphenyl	2.18		mg/Kg dry	3.51		62.1	30-130			
Surrogate: 2,4,6-Tribromophenol	3.82		mg/Kg dry	7.02		54.5	30-130			
Surrogate: p-Terphenyl-d14	1.89		mg/Kg dry	3.51		53.9	30-130			



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## QUALITY CONTROL

## Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B248210 - SW-846 3546</b>										
<b>Blank (B248210-BLK1)</b>				Prepared: 12/12/19 Analyzed: 12/13/19						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	0.134		mg/Kg wet	0.200		66.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.121		mg/Kg wet	0.200		60.6	30-150			
Surrogate: Tetrachloro-m-xylene	0.126		mg/Kg wet	0.200		63.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.127		mg/Kg wet	0.200		63.5	30-150			
<b>LCS (B248210-BS1)</b>				Prepared: 12/12/19 Analyzed: 12/13/19						
Aroclor-1016	0.13	0.020	mg/Kg wet	0.200		66.9	40-140			
Aroclor-1016 [2C]	0.13	0.020	mg/Kg wet	0.200		63.0	40-140			
Aroclor-1260	0.13	0.020	mg/Kg wet	0.200		64.5	40-140			
Aroclor-1260 [2C]	0.11	0.020	mg/Kg wet	0.200		57.1	40-140			
Surrogate: Decachlorobiphenyl	0.143		mg/Kg wet	0.200		71.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.129		mg/Kg wet	0.200		64.7	30-150			
Surrogate: Tetrachloro-m-xylene	0.130		mg/Kg wet	0.200		64.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.130		mg/Kg wet	0.200		65.0	30-150			
<b>LCS Dup (B248210-BSD1)</b>				Prepared: 12/12/19 Analyzed: 12/13/19						
Aroclor-1016	0.14	0.020	mg/Kg wet	0.200		71.3	40-140	6.44	30	
Aroclor-1016 [2C]	0.14	0.020	mg/Kg wet	0.200		68.5	40-140	8.38	30	
Aroclor-1260	0.14	0.020	mg/Kg wet	0.200		69.6	40-140	7.57	30	
Aroclor-1260 [2C]	0.12	0.020	mg/Kg wet	0.200		61.1	40-140	6.72	30	
Surrogate: Decachlorobiphenyl	0.150		mg/Kg wet	0.200		75.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.136		mg/Kg wet	0.200		68.1	30-150			
Surrogate: Tetrachloro-m-xylene	0.141		mg/Kg wet	0.200		70.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.142		mg/Kg wet	0.200		70.8	30-150			

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## QUALITY CONTROL

## Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B248100 - SW-846 7471</b>										
<b>Blank (B248100-BLK1)</b>										
Prepared: 12/11/19 Analyzed: 12/12/19										
Mercury	ND	0.025	mg/Kg wet							
<b>LCS (B248100-BS1)</b>										
Prepared: 12/11/19 Analyzed: 12/12/19										
Mercury	6.65	0.39	mg/Kg wet	7.61		87.3	72.7-127.3			
<b>LCS Dup (B248100-BSD1)</b>										
Prepared: 12/11/19 Analyzed: 12/12/19										
Mercury	7.27	0.38	mg/Kg wet	7.61		95.5	72.7-127.3	8.91	20	
<b>Duplicate (B248100-DUP1)</b>										
Source: 19L0400-08 Prepared: 12/11/19 Analyzed: 12/12/19										
Mercury	ND	0.026	mg/Kg dry		ND			NC	35	
<b>Matrix Spike (B248100-MS1)</b>										
Source: 19L0400-08 Prepared: 12/11/19 Analyzed: 12/12/19										
Mercury	0.401	0.027	mg/Kg dry	0.358	ND	112	75-125			
<b>Batch B248351 - SW-846 3050B</b>										
<b>Blank (B248351-BLK1)</b>										
Prepared: 12/13/19 Analyzed: 12/16/19										
Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	1.7	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.17	mg/Kg wet							
Chromium	ND	0.33	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Nickel	ND	0.33	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Vanadium	ND	0.67	mg/Kg wet							
Zinc	ND	0.67	mg/Kg wet							
<b>LCS (B248351-BS1)</b>										
Prepared: 12/13/19 Analyzed: 12/16/19										
Antimony	118	4.8	mg/Kg wet	147		80.3	4.2-196.6			
Arsenic	144	4.8	mg/Kg wet	143		101	83.2-117.5			
Barium	440	4.8	mg/Kg wet	415		106	82.7-117.6			
Beryllium	182	0.48	mg/Kg wet	179		102	83.2-117.3			
Cadmium	55.9	0.48	mg/Kg wet	56.2		99.4	82.9-117.3			
Chromium	101	0.96	mg/Kg wet	101		100	82.4-116.8			
Lead	126	1.4	mg/Kg wet	125		101	82.4-116.8			
Nickel	111	0.96	mg/Kg wet	108		103	82.9-117.6			
Selenium	69.1	9.6	mg/Kg wet	77.9		88.7	79.3-120.7			
Silver	38.1	0.96	mg/Kg wet	34.3		111	81-119.2			
Thallium	114	4.8	mg/Kg wet	113		101	80.8-118.6			
Vanadium	82.8	1.9	mg/Kg wet	83.7		98.9	79.8-120.7			
Zinc	236	1.9	mg/Kg wet	240		98.3	80.8-118.8			

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### QUALITY CONTROL

#### Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B248351 - SW-846 3050B</b>										
<b>LCS Dup (B248351-BS1)</b>				Prepared: 12/13/19 Analyzed: 12/16/19						
Antimony	123	4.8	mg/Kg wet	147		84.0	4.2-196.6	4.54	30	
Arsenic	148	4.8	mg/Kg wet	143		104	83.2-117.5	2.84	30	
Barium	447	4.8	mg/Kg wet	415		108	82.7-117.6	1.57	20	
Beryllium	179	0.48	mg/Kg wet	179		100	83.2-117.3	1.42	30	
Cadmium	56.2	0.48	mg/Kg wet	56.2		100	82.9-117.3	0.580	20	
Chromium	104	0.97	mg/Kg wet	101		103	82.4-116.8	2.42	30	
Lead	128	1.5	mg/Kg wet	125		103	82.4-116.8	1.94	30	
Nickel	112	0.97	mg/Kg wet	108		103	82.9-117.6	0.519	30	
Selenium	70.1	9.7	mg/Kg wet	77.9		89.9	79.3-120.7	1.43	30	
Silver	38.6	0.97	mg/Kg wet	34.3		113	81-119.2	1.37	30	
Thallium	125	4.8	mg/Kg wet	113		111	80.8-118.6	9.17	30	
Vanadium	85.4	1.9	mg/Kg wet	83.7		102	79.8-120.7	3.03	30	
Zinc	240	1.9	mg/Kg wet	240		100	80.8-118.8	1.65	30	
<b>Duplicate (B248351-DUP1)</b>				Source: 19L0400-01 Prepared: 12/13/19 Analyzed: 12/16/19						
Antimony	ND	1.7	mg/Kg dry		ND			NC	35	
Arsenic	10.8	1.7	mg/Kg dry		11.6			7.58	35	
Barium	38.3	1.7	mg/Kg dry		36.9			3.53	35	
Beryllium	0.369	0.17	mg/Kg dry		0.366			1.04	35	
Cadmium	0.225	0.17	mg/Kg dry		0.254			12.2	35	
Chromium	36.0	0.35	mg/Kg dry		31.1			14.6	35	
Lead	53.5	0.52	mg/Kg dry		45.7			15.8	35	
Nickel	23.6	0.35	mg/Kg dry		22.4			5.58	35	
Selenium	ND	3.5	mg/Kg dry		ND			NC	35	
Silver	ND	0.35	mg/Kg dry		ND			NC	35	
Thallium	ND	1.7	mg/Kg dry		ND			NC	35	
Vanadium	58.7	0.70	mg/Kg dry		55.8			5.08	35	
Zinc	62.2	0.70	mg/Kg dry		57.5			7.93	35	
<b>Matrix Spike (B248351-MS1)</b>				Source: 19L0400-01 Prepared: 12/13/19 Analyzed: 12/16/19						
Antimony	5.29	1.7	mg/Kg dry	17.1	ND	30.9	■	75-125		MS-07
Arsenic	28.6	1.7	mg/Kg dry	17.1	11.6	99.2		75-125		
Barium	55.0	1.7	mg/Kg dry	17.1	36.9	106		75-125		
Beryllium	16.1	0.17	mg/Kg dry	17.1	0.366	91.9		75-125		
Cadmium	15.7	0.17	mg/Kg dry	17.1	0.254	90.1		75-125		
Chromium	50.1	0.34	mg/Kg dry	17.1	31.1	111		75-125		
Lead	63.8	0.51	mg/Kg dry	17.1	45.7	106		75-125		
Nickel	40.6	0.34	mg/Kg dry	17.1	22.4	106		75-125		
Selenium	12.4	3.4	mg/Kg dry	17.1	ND	72.3	*	75-125		MS-07
Silver	16.5	0.34	mg/Kg dry	17.1	ND	96.3		75-125		
Thallium	18.8	1.7	mg/Kg dry	17.1	ND	110		75-125		
Vanadium	76.3	0.68	mg/Kg dry	17.1	55.8	120		75-125		
Zinc	91.5	0.68	mg/Kg dry	34.2	57.5	99.5		75-125		

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B248351 - SW-846 3050B

Reference (B248351-SRM1)

Prepared: 12/13/19 Analyzed: 12/16/19

Lead	0.450	0.50	mg/Kg wet	0.495		90.8	80-120			
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### QUALITY CONTROL

#### Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B248096 - % Solids</b>										
<b>Duplicate (B248096-DUP1)</b>	<b>Source: 19L0400-01</b>			<b>Prepared &amp; Analyzed: 12/11/19</b>						
% Solids	94.1		% Wt		94.3			0.253	20	
<b>Duplicate (B248096-DUP2)</b>	<b>Source: 19L0400-02</b>			<b>Prepared &amp; Analyzed: 12/11/19</b>						
% Solids	93.4		% Wt		90.8			2.78	20	
<b>Duplicate (B248096-DUP3)</b>	<b>Source: 19L0400-03</b>			<b>Prepared &amp; Analyzed: 12/11/19</b>						
% Solids	92.2		% Wt		93.9			1.82	20	
<b>Duplicate (B248096-DUP4)</b>	<b>Source: 19L0400-04</b>			<b>Prepared &amp; Analyzed: 12/11/19</b>						
% Solids	76.8		% Wt		77.4			0.750	20	

**IDENTIFICATION SUMMARY  
FOR SINGLE COMPONENT ANALYTES**  
*SW-846 8082A*

Gp4-2 (6-8')

Lab Sample ID: 19L0400-09 Date(s) Analyzed: 12/14/2019 12/14/2019  
Instrument ID (1): ECD10 Instrument ID (2): ECD10  
GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	13	
	2	0.000	0.000	0.000	15	14.3
Aroclor-1260	1	0.000	0.000	0.000	51	
	2	0.000	0.000	0.000	46	10.3



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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B248210-BS1 Date(s) Analyzed: 12/13/2019 12/13/2019

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.13	
	2	0.000	0.000	0.000	0.13	0.0
Aroclor-1260	1	0.000	0.000	0.000	0.13	
	2	0.000	0.000	0.000	0.11	16.7

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B248210-BSD1 Date(s) Analyzed: 12/13/2019 12/13/2019

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.14	
	2	0.000	0.000	0.000	0.14	0.0
Aroclor-1260	1	0.000	0.000	0.000	0.14	
	2	0.000	0.000	0.000	0.12	15.4

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# FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
RL-08	Elevated reporting limit due to sample matrix interference. MA CAM reporting limit not met.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>SW-846 6010D in Soil</i></b>	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC

***SW-846 7471B in Soil***

Mercury	CT,NH,NY,NC,ME,VA
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***SW-846 8082A in Soil***

Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA

***SW-846 8082A in Water***

Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA

# CERTIFICATIONS

## Certified Analyses included in this Report

Analyte	Certifications
<b>SW-846 8082A in Water</b>	
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
<b>SW-846 8270D-E in Soil</b>	
Acenaphthene	CT,NY,NH
Acenaphthylene	CT,NY,NH
Acetophenone	NY,NH
Aniline	NY,NH
Anthracene	CT,NY,NH
Benzo(a)anthracene	CT,NY,NH
Benzo(a)pyrene	CT,NY,NH
Benzo(b)fluoranthene	CT,NY,NH
Benzo(g,h,i)perylene	CT,NY,NH
Benzo(k)fluoranthene	CT,NY,NH
Bis(2-chloroethoxy)methane	CT,NY,NH
Bis(2-chloroethyl)ether	CT,NY,NH
Bis(2-chloroisopropyl)ether	CT,NY,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NH
4-Bromophenylphenylether	CT,NY,NH
Butylbenzylphthalate	CT,NY,NH
4-Chloroaniline	CT,NY,NH
2-Chloronaphthalene	CT,NY,NH
2-Chlorophenol	CT,NY,NH
Chrysene	CT,NY,NH
Dibenz(a,h)anthracene	CT,NY,NH
Dibenzofuran	CT,NY,NH
Di-n-butylphthalate	CT,NY,NH
1,2-Dichlorobenzene	NY,NH
1,3-Dichlorobenzene	NY,NH
1,4-Dichlorobenzene	NY,NH
3,3-Dichlorobenzidine	CT,NY,NH
2,4-Dichlorophenol	CT,NY,NH
Diethylphthalate	CT,NY,NH
2,4-Dimethylphenol	CT,NY,NH
Dimethylphthalate	CT,NY,NH
2,4-Dinitrophenol	CT,NY,NH
2,4-Dinitrotoluene	CT,NY,NH
2,6-Dinitrotoluene	CT,NY,NH
Di-n-octylphthalate	CT,NY,NH
1,2-Diphenylhydrazine/Azobenzene	NY,NH
Fluoranthene	CT,NY,NH
Fluorene	NY,NH

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# CERTIFICATIONS

## Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270D-E in Soil</i>	
Hexachlorobenzene	CT,NY,NH
Hexachlorobutadiene	CT,NY,NH
Hexachloroethane	CT,NY,NH
Indeno(1,2,3-cd)pyrene	CT,NY,NH
Isophorone	CT,NY,NH
2-Methylnaphthalene	CT,NY,NH
2-Methylphenol	CT,NY,NH
3/4-Methylphenol	CT,NY,NH
Naphthalene	CT,NY,NH
Nitrobenzene	CT,NY,NH
2-Nitrophenol	CT,NY,NH
4-Nitrophenol	CT,NY,NH
Pentachlorophenol	CT,NY,NH
Phenanthrene	CT,NY,NH
Phenol	CT,NY,NH
Pyrene	CT,NY,NH
1,2,4-Trichlorobenzene	CT,NY,NH
2,4,5-Trichlorophenol	CT,NY,NH
2,4,6-Trichlorophenol	CT,NY,NH
<i>SW-846 8270D-E in Water</i>	
Acenaphthene	CT,NY,NH
Acenaphthylene	CT,NY,NH
Acetophenone	NY
Aniline	CT,NY
Anthracene	CT,NY,NH
Benzo(a)anthracene	CT,NY,NH
Benzo(a)pyrene	CT,NY,NH
Benzo(b)fluoranthene	CT,NY,NH
Benzo(g,h,i)perylene	CT,NY,NH
Benzo(k)fluoranthene	CT,NY,NH
Bis(2-chloroethoxy)methane	CT,NY,NH
Bis(2-chloroethyl)ether	CT,NY,NH
Bis(2-chloroisopropyl)ether	CT,NY,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NH
4-Bromophenylphenylether	CT,NY,NH
Butylbenzylphthalate	CT,NY,NH
4-Chloroaniline	CT,NY,NH
2-Chloronaphthalene	CT,NY,NH
2-Chlorophenol	CT,NY,NH
Chrysene	CT,NY,NH
Dibenz(a,h)anthracene	CT,NY,NH
Dibenzofuran	CT,NY,NH
Di-n-butylphthalate	CT,NY,NH
1,2-Dichlorobenzene	CT,NY,NH
1,3-Dichlorobenzene	CT,NY,NH
1,4-Dichlorobenzene	CT,NY,NH

## CERTIFICATIONS

## Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270D-E in Water</i>	
3,3-Dichlorobenzidine	CT,NY,NH
2,4-Dichlorophenol	CT,NY,NH
Diethylphthalate	CT,NY,NH
2,4-Dimethylphenol	CT,NY,NH
Dimethylphthalate	CT,NY,NH
2,4-Dinitrophenol	CT,NY,NH
2,4-Dinitrotoluene	CT,NY,NH
2,6-Dinitrotoluene	CT,NY,NH
Di-n-octylphthalate	CT,NY,NH
1,2-Diphenylhydrazine/Azobenzene	NY
Fluoranthene	CT,NY,NH
Fluorene	NY,NH
Hexachlorobenzene	CT,NY,NH
Hexachlorobutadiene	CT,NY,NH
Hexachloroethane	CT,NY,NH
Indeno(1,2,3-cd)pyrene	CT,NY,NH
Isophorone	CT,NY,NH
2-Methylnaphthalene	CT,NY,NH
2-Methylphenol	CT,NY,NH
3/4-Methylphenol	CT,NY,NH
Naphthalene	CT,NY,NH
Nitrobenzene	CT,NY,NH
2-Nitrophenol	CT,NY,NH
4-Nitrophenol	CT,NY,NH
Pentachlorophenol	CT,NY,NH
Phenanthrene	CT,NY,NH
Phenol	CT,NY,NH
Pyrene	CT,NY,NH
1,2,4-Trichlorobenzene	CT,NY,NH
2,4,5-Trichlorophenol	CT,NY,NH
2,4,6-Trichlorophenol	CT,NY,NH

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020



[illegible]

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client CDW  
Received By BBR Date 12/10/19 Time 2030

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 2 Actual Temp - 4.1  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? na Were Samples Tampered with? na  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T

Is there Headspace where applicable? na MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F

Do all samples have the proper pH? \_\_\_\_\_ Acid na Base na

Unp-	1 Liter Amb.	1 Liter Plastic	16 oz Amb.
HCL-	500 mL Amb.	500 mL Plastic	8oz Amb/Clear <u>9</u>
Meoh-	250 mL Amb.	250 mL Plastic	4oz Amb/Clear
Bisulfate-	Flashpoint	Col./Bacteria	2oz Amb/Clear
DI-	Other Glass	Other Plastic	Encore
Thiosulfate-	SOC Kit	Plastic Bag	Frozen:
Sulfuric-	Perchlorate	Ziplock	

Unp-	1 Liter Amb.	1 Liter Plastic	16 oz Amb.
HCL-	500 mL Amb.	500 mL Plastic	8oz Amb/Clear
Meoh-	250 mL Amb.	250 mL Plastic	4oz Amb/Clear
Bisulfate-	Col./Bacteria	Flashpoint	2oz Amb/Clear
DI-	Other Plastic	Other Glass	Encore
Thiosulfate-	SOC Kit	Plastic Bag	Frozen:
Sulfuric-	Perchlorate	Ziplock	

Comments:

## MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory				Project #: 19L0400	
Project Location: 240 Beaver St. Waltham, MA				RTN:	
This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)] 19L0400-01 thru 19L0400-09					
Matrices: Soil					
<b>CAM Protocol (check all that below)</b>					
8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB (X)	MassDEP VPH CAM IV A ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )
8270 SVOC CAM II B (X)	7010 Metals CAM III C ( )	MassDEP VPH CAM IV C ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	MassDEP EPH CAM IV B ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
<b>Affirmative response to Questions A through F is required for "Presumptive Certainty" status</b>					
<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).				<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?				<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>A response to questions G, H and I below is required for "Presumptive Certainty" status</b>					
<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2)(k) and WSC-07-350.</b>					
<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.					
<b>I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.</b>					
Signature: <u>Lisa Worthington</u>			Position: Technical Representative		
Printed Name: <u>Lisa A. Worthington</u>			Date: <u>12/17/19</u>		

